wherein the converter comprises a first stator connected to a first AC network with a first frequency f_1, and a second stator connected to a second AC network with a second frequency f_2, wherein the converter comprises a rotor [means] which rotates in dependence of the first and second frequencies f_1, f_2, and wherein at least one of said stators [comprises] includes at least one winding, [including] comprising [wherein each winding comprises] at least one current-carrying conductor and a magnetically permeable, electric field confining insulating covering surrounding the conductor, [and an insulation system] including [at least two] inner and outer semiconducting layers, wherein each layer forms a substantially equipotential surface, and a solid insulation located between the [first and second] inner and outer layers.

C1 end

Claim 2 (Twice Amended) The rotating asynchronous converter according to claim 1, wherein at least one of said semiconducting layers has substantially equal thermal expansion coefficient as said solid insulation.

ne

Claim 3. The rotating asynchronous converter according to claim 2, wherein the potential of the inner one of said layers is substantially equal to the potential of the conductor.

C2

Claim 4. (Twice Amended) The rotating asynchronous converter according to claim 1, wherein [an] the outer [one of said layers] layer is arranged to [constitute] form substantially an equipotential surface surrounding said conductor.

ne

Claim 5. The rotating asynchronous converter according to claim 4, wherein said outer layer is connected to a specific portential.

Claim 6. The rotating asynchronous converter according to claim 5, wherein said specific potential is ground potential.

Claim 7. (Twice Amended) The rotating asynchronous converter according to claim 1, wherein [at least two of] said inner and outer layers have substantially equal thermal expansion coefficients.

B3

Claim 8. (Twice Amended) The rotating asynchronous converter according to claim 1, wherein said current-carrying conductor comprises [a number of strands, only a minority of said strands being non-isolated from each other] at least one of a plurality of insulated conductive elements and at least one uninsulated conductive element.

Claim 9. (Twice Amended) The rotating asynchronous converter according to claim 1, wherein each of said [two] inner and outer layers [and said solid insulation] is fixedly connected to the adjacent layer [or] of solid insulation along substantially the whole of a connecting surface therebetween.

Claim 10 has been canceled.

Cancel claim 11.

Claim 12 (Twice Amended) The rotating asynchronous converter according to claim 11, wherein the winding comprises a cable [has] having a diameter comprised in the approximate interval 20-250 mm and a conductor area comprised in the approximate interval 80-3000 mm^2.

C4

Claim 13. (Amended) The rotating asynchronous converter according to claim 1, wherein said rotor [means] comprises two electrically and mechanically connected rotors, which are concentrically arranged in respect of said stators.

Claim 14. (Amended) The rotating asynchronous converter according to claim 13, wherein said converter [also] further comprises an auxiliary device connected to said rotors for starting up [of] the rotors to a suitable rotation speed before connection of said converter.

C4 cont.

Claim 15. (Amended) The rotating asynchronous converter according to claim 14, wherein each of said rotors [each] comprises a low voltage winding, and [in that] wherein said rotors are [rotating] rotatable with the frequency $(f_1 - f_2)/2$, and the stator has a current [has the] with a frequency $((f_1 + f_2)/2$ when said converter is in operation.

Claim 16. (Twice Amended) The rotating asynchronous converter according to [calim] claim 1, wherein said rotor [means] comprises a single rotor concentrically arranged in respect of said stators.

Claim 17. (Amended) The rotating asynchronous converter according to claim 16, wherein said rotor comprises a first loop of [wire] cable and a second loop of [wire] cable, wherein said loops of [wire] cable are connected to each other and are arranged opposite each other on said rotor and separated by two sectors, wherein each sector has an angular width of $\dot{\alpha}$.

Claim 18. (Amended) The rotating asynchronous converter according to claim 17, wherein said converter [also] further comprises an auxiliary device connected to said rotor for starting up [of] the rotor to a suitable rotational speed before connection of said converter, and [in that] said rotor is [rotating] rotatable with the frequency $F_R = \frac{\pi-\alpha}{\Pi} . \frac{\Delta f}{4}$ \= wherein $\Delta f = \left| f_1 - f_2 \right|$.

Claim 19. (Twice Amended). A rotating asynchronous converter for connection of AC networks with equal or different frequencies, wherein the

converter comprises a first stator for connection [connected] to a first AC network with a first frequency f_1, and a second stator for connection [connected] to a second AC network with a second frequency f_2, [wherein the converter also comprises a] rotor means [which rotates] rotatable in dependence of the first and second frequencies f_1, f_2 and [in that said stators] each stator includes [comprises] at least one winding, [wherein each winding comprises] comprising at least one current-carrying conductor, and [also comprising an] a magnetically permeable, electric field confining insulation system, which [in respect of its thermal and electrical properties] permits a voltage level in said rotating asynchronous converter exceeding 36 kV.

C4 cont.

SUB D2

Claim 20. (Twice Amended) A generator device operable with variable rotational speed, wherein the generator device comprises a stator [connected] for connection to an AC network with a frequency f_2, a first cylindrical rotor for connection [connected] to a turbine, [which rotates with] rotatable as a frequency f_1, wherein said generator device [also] comprises [a] rotor means [which rotates] being rotatable in dependence of the frequencies f_1, f_2, and [in that] said stator and said first cylindrical rotor each [comprises] includes at least one winding, [wherein each winding comprises] comprising at least one current-carrying conductor, and [each winding comprise an] a magnetically permeable, electric field confining insulation system, [which comprises on the one hand] including inner and outer [at least two] semiconducting layers, wherein each layer [constitutes] forms a substantially [an] equipotential surface surrounding the conductor, and [on the other hand between them is arranged] a solid insulation between the semiconducting layers.

Claim 21. (Amended) The generator device according to claim 20, wherein at least one of said semiconducting layers has [in the main] substantially equal thermal expansion coefficient as said solid insulation.

Claim 22. (Amended) The generator device according to claim 21, wherein the inner layer has a potential [of the inner one of said layers is] substantially equal to [the] a potential of the conductor.

Claim 23. (Twice Amended) The generator device according to claim 21, wherein [an] the outer one of said layers is arranged to [constitute] form substantially an equipotential surface surrounding said conductor.

C4 cont.

Claim 24. The generator device according to claim 23, wherein said outer layer is connected to a specific potential.

Claim 25. The generator device according to claim 24, wherein said specific potential is ground potential.

Claim 26. (Amended) The generator device according to [any one of claims 20-25] claim 20, wherein at least two of said layers have substantially equal thermal expansion coefficients.

Claim 27. (Twice Amended) The generator device according to claim 20, wherein said current-carrying conductor comprises [a number of strands, only a minority of said strands being non-isolated from each other] at least one of a plurality of insulated conductive elements and at least one uninsulated element being in electrical contact with the covering.

Claim 28. (Amended) The generator device according to claim 20, wherein each of said two layers and said solid insulation is [fixed] connected to adjacent layer or solid insulation along substantially the whole connecting surface.

sub D3

Claim 29. (Amended) A generator device with variable rotational speed[, wherein the generator device comprises] comprising a stator [connected] for

D3 cont.

connection to an AC network with a frequency f2, a first cylindrical rotor [connected] for connection to a turbine, [which rotates] being rotatable with a frequency f_1, [characterized in that] wherein said generator device [also] comprises [a] rotor means [which rotates] being rotatable in dependence of the frequencies f_1, f_2, and [in that] said stator and said first cylindrical rotor each comprises at least one winding, wherein each winding comprises a cable [comprising] including at least one current-carrying conductor,

[-] each conductor comprises a number of [strands] conductive elements,

[- around said conductor is arranged] an inner semiconducting layer surrounding the conductor,

[- around said inner semiconducting layer is arranged] an insulating layer of solid insulation surrounding the inner layer, and

[- around said insulating layer is arranged] an [outer] outermost semiconducting layer surrounding the insulating layer.

C4 end

Cancel claim 30.

Claim 31. (Amended) The generator device according to Claim [30] 29, wherein the cable has a diameter [comprised in the approximate interval] of about 20-250 mm and a conductor area [comprised in the approximate interval] is about 80-3000 mm^2.

C5

Claim 32. (Amended) The generator device according to claim 29, wherein said rotor means comprises two electrically and mechanically connected hollow rotors[, wherein said rotors are hollow and] arranged concentrically around said stator and said cylindrical rotor.

Claim 33. (Amended) The generator device according to Claim 32, wherein each of said rotors [of said rotor means each] comprises a low voltage winding, and [in that] said rotor is [rotating with the] rotatable at a frequency $(f_1-f_2)/2$ when said generator device is in operation.

ne

Claim 34. The generator device according to Claim 33, wherein said stator has a cylindrical shape.

Claim 35. The generator device according to claim 29, wherein said rotor means comprises a first rotor and a second rotor, which rotors are electrically and mechanically connected, wherein said first rotor is hollow and arranged concentrically around said first cylindrical rotor, and said second rotor is cylindrical.

Ck

Claim 36. (Amended) The generator device according to Claim 35, wherein said first and second rotors of said rotor means each comprises a low voltage winding, and [in that] wherein said first and second rotors are [rotating with the] rotatable at a frequency $(f_1-f_2)/2$ when said generator device is in operation.

ne

Claim 37. The generator device according to Claim 36, wherein said stator is hollow and arranged around said second rotor.

Claim 38. The use of a rotating asynchronous converter in accordance with claim 1 for connection of non-synchronous three phase networks with equal rating frequencies.

Claim 39. The use of a rotating asynchronous converter in accordance with claim 1 for connection of three phase networks with different frequencies.

Claim 40. The use of a rotating asynchronous converter in accordance with claim 1 as a series compensation in long distance AC transmission.

he

Claim 41. The use of a rotating asynchronous converter in accordance with claim 1 for reactive power compensation.

SUB D4

Claim 42. (Amended) A rotating asynchronous converter employing a high voltage electric machine comprising a stator, a rotor and a winding[, wherein at least one of said windings comprises] comprising a cable including at least one current-carrying conductor and a magnetically permeable, electric field confining cover surrounding the conductor and being in electrical contact therewith, said cable forming at least one uninterrupted turn in the corresponding winding of said machine.

C7

Claim 43. (Amended) The converter of claim 42, wherein the cover comprises an insulating layer surrounding the conductor and an [outer] outermost layer surrounding the insulating layer, said [outer] outermost layer having a conductivity sufficient to establish an equipotential surface around the conductor.

Claim 44. (Amended) The converter of claim 42, wherein the cover comprises an inner layer surrounding the conductor and being in electrical contact therewith; an insulating layer surrounding the inner layer and an [outer] outermost layer surrounding the insulating layer.

Claim 45. (Amended) The converter of claim 44, wherein the inner and [outer] outermost layers have semiconducting properties.

Claim 46. The converter of claim 42, wherein the cover is formed of a plurality of layers including an insulating layer and wherein said plurality of layers are substantially void free.

he

Claim 47. The converter of claim 42, wherein the cover is in electrical contact with the conductor.

Claim 48. The converter of claim 47, wherein the layers of the cover have substantially the same temperature coefficient of expansion.

ne

Claim 49. The converter of claim 42, wherein the machine is operable at 100% overload for two hours.

C8

Claim 50. (Amended) The converter of claim 42, wherein the [cable] winding is operable free of sensible end winding loss.

Claim 51. The converter of claim 42, wherein the winding is operable free of partial discharge and field control.

ne

Claim 52. The converter of claim 42, wherein the winding comprises multiple uninterrupted turns.

Cancel claim 53.

ne.

Claim 54. The converter of claim 42, wherein the cable is flexible.

SUB D5

C9

Claim 55. (Amended) A rotating asynchronous converter for connection of AC networks with equal or different frequencies, wherein the converter comprises a first stator connected to a first AC network with a first frequency f_1, and a second stator connected to a second AC network with a second frequency f_2, wherein the converter further comprises rotor means which rotates in dependence of said first and second frequencies f_1, f_2, said stators each comprise at least one winding, wherein each winding comprises a cable including at least one current-carrying conductor, and an electric field confining, solid insulation covering surrounding the conductor, said conductor including at least one of a plurality of insulated conductive [strands] elements and at least one uninsulated conductive [strand] element in contact with the cover.